IN THE SPECIFICATION

Amend the paragraph on page 1, beginning at line 7, as follows:

In digital data processing, it is often necessary to convert digital image data that are present in the raster of a first resolution into target data having a second resolution. Each picture element, i.e. a point in the raster allocated to the digital value, is thereby referred to as pixel. Without gray levels, thus, a pixel corresponds to one bit. The topical resolution is thereby indicated in picture elements per inch (dots per inch, dpi). As known, one inch corresponds to 25.4 ~~25.6~~ mm. The second resolution (target resolution) is usually higher than the first (source resolution). The target image in the second resolution can also contain more gray scale values per pixel than the source image instead of or in addition to the higher topical resolution.

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Amend the paragraph on page 1, beginning at line 16, as follows:

For example, it often occurs in digital printing technology that image data are supplied by a computer in a first raster, for example in a 240 dpi raster, but are to be reproduced by a printer in a different raster, for example in a 600 dpi raster. Particularly when expanding an existing EDP system by a modern printer, it occurs that print jobs that were produced earlier comprise, for example, only masters in 240 dpi resolution. When the user wishes to use a ~~his~~ new printer with, for example, a resolution of 600 dpi, then the print data must be correspondingly converted. The conversion should thereby ensue automatically without requiring inputs by the user.

C2

Amend the paragraph on page 2, beginning at line 13, as follows:

A method for scaling and smoothing image data is disclosed by German Patent Document DE 195 06 792 A1. In this method, a plurality of sets of pixel patterns or, respectively, Boolean calculating operations allocated to them are provided, with reference whereto the conversion ensues. For conversion, a matrix of source image data having, for example, 7 x 7 picture elements is subjected to the basic calculating operations and the target image data are acquired therefrom. When scaling the image data "up" (SF > 1), a respective group of target pixels is allocated to a group of source pixels. The calculating operations are

C3

C3 cont'd

configured such that the same number of high-resolution pixels are removed as added on average in the conversion. What is thereby achieved is that the degree of blackening of an overall image is essentially preserved.

Amend the paragraph on page 3, beginning at line 8, as follows:

C4

Another procedure for scaling and smoothing image data is disclosed by European Patent Document EP 506 379 B1 as well as by US Patent No. 5,270,836. Two steps for scaling and smoothing are provided in this procedure. As schematically shown in Figure 1, a source image 1 that is present in a source raster is scaled in a first step 2 given this procedure, as a result whereof an intermediate image 3 arises in the target raster. The smoothing in the target raster is implemented on the basis of this intermediate image in the second step 4, as a result whereof the target 5 arises.

Amend the paragraph on page 3, beginning at line 27, as follows:

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Another method for converting image data is disclosed by German Patent Document DE 42 06 277 A1. Only a raster conversion but no smoothing of the image data ensues given this method. European Patent Document EP 708 415 A2 likewise discloses a method for converting image data that, however, is only suitable for whole-numbered scaling factors. European Patent Document EP 0 006 351 A1 discloses an image processing system that works with look-up tables. US Patent No. 5,657,430 A discloses a method for converting vector fonts onto gray scale bit maps.

Amend the paragraph on substitute page 4, beginning at line 3, as follows:

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US Patent No. [[-A-]] 5,646,741 discloses a method and an apparatus wherein image signals are scaled and smoothed. A check according to predetermined criteria is thereby carried out in the source region to see whether a smoothing should be implemented and the source image signals potentially smoothed. The smoothed image signals are smoothed thereafter.

Amend the paragraph on substitute page 4, beginning at line 15, as follows:

PCT Published International Application WO-A-96/16380 discloses a system and a method for the interpolation of image signals. A rule is thereby respectively selected from a plurality of interpolation rules. The source image signals are then processed in a plurality of successive steps. In a first step, the image signals are interpolated line-by-line on the basis of a selected, line-related rule. In a second step, the image signals are then interpolated column-by-column on the basis of a second, column-related rule. Finally, the line image signals and the column image signals are compiled in pages by a formatting unit.

Amend the paragraph on substitute page 4, beginning at line 15, as follows:

An object of the method is to provide ~~specify~~ a method for converting digital image data from a first raster into a second raster that leads to a high processing speed and that implements both a scaling as well as a smoothing of the image data.

Amend the paragraph on substitute page 4, beginning at line 18, as follows:

This object is achieved by the invention ~~recited in patent claims 1 and 3. Advantageous embodiments of the invention derive from the subclaims.~~ of a method for converting digital source data referring to source pixels in the raster of a first resolution into digital target data in the raster of a second resolution, including the data are scaled by at least one scaling factor, each source datum having a target image matrix allocated to it on the basis of a surround window surrounding the source pixel and the target data being determined from neighboring target image matrices such that each target pixel is directly formed from a source pixel taking the surroundings thereof into consideration, each source datum being employed for smoothing the target data to be determined from all neighboring source data, and the scaling and the smoothing being implemented in a common processing step such that the target data are smoothed in the raster of the source data. In a further embodiment, the method for converting digital source data in the raster of a first resolution into digital target data in the raster of a second resolution, includes the data being scaled by a scaling factor and being smoothed, a scaling rule being prescribed from a plurality of selectable scaling rules, a smoothing rule being prescribed from a plurality of smoothing rule, a single scaling and

C9 could

smoothing rule being formed from the selected scaling rule and the selected smoothing rule, both a smoothing of the target data in the raster of the source data as well as a scaling ensuing in respectively one processing step with said single scaling and smoothing rule during the formation of the target data, each source datum having a target image matrix allocated to it on the basis of a surround window surrounding the source pixel and the target data being determined from neighboring target image matrices such that each target pixel is directly formed from a source pixel taking the surroundings thereof into consideration, each source datum being employed for smoothing the target data to be determined from all neighboring source data.

Amend the paragraph on page ~~10~~ 21 beginning at line 19, as follows:

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Since the half ~~the~~ pixels can not be digitally presented, a group of pixels is initially considered as starting basis for the scaling procedure, whereby a solution for the following task must be found:

Amend the paragraph on page 11, beginning at line 1, as follows:

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There are 16 combinations that must be imaged onto the target region derive from the 2 x 2 pixels in the source region. These 16 combinations of possible source squares 9 in the source region are shown in Figure 9, whereby black pixels stand for the binary information "1". Respectively three possible target squares 10 in the 5 x 5 target matrix onto which these source data can be imaged are indicated to the right adjacent ~~next~~ to each of the 2 x 2 pixel squares of the source data.

Amend the paragraph on page 13, beginning at line 11, as follows:

C12

There are (sx_Z * sy_Z) logical equations with respectively up to (sx_N * sy_N) dependencies. It can occur at the top and right-hand edges that the source blocks are not completely occupied with source pixels; the width and height of the source image is arbitrary and is not necessarily a multiple of the source blocks. Elements that do not exist must be assumed to have ~~of~~ not been set, usually white (0).